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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,312	06/08/2001	Christophe Serbutoviez	PHN 16, 199B	9784

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

HON, SOW FUN

ART UNIT PAPER NUMBER

1772

DATE MAILED: 01/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/877,312

Applicant(s)

SERBUTOVIEZ ET AL.

Examiner

Sow-Fun Hon

Art Unit

1772

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 15 December 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. **ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).**

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See attachment to advisory action.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: None.Claim(s) objected to: None.Claim(s) rejected: 5-9.Claim(s) withdrawn from consideration: 1-4.

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☒ Other: Attachment to advisory action

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Advisory Action

1. The request for reconsideration filed 12/15/03 has been considered but does not place the application in condition for allowance for the reasons set forth below.
2. Applicant argues that Takiguchi '497 does not teach or suggest an alkyl-phenol acrylate that is either readily miscible or poorly miscible with any liquid crystal in that Takiguchi is only concerned with a combination of monofunctional and bifunctional monomer components wherein a specific range of HLB values for the components result in particular light dispersion properties.

Applicant is respectfully reminded that JP '240 is the primary reference that teaches a mixture of one acrylate miscible with the liquid crystal and one acrylate poorly miscible with the liquid crystal. Furthermore, the secondary reference '497 does teach that the optimal HLB of the acrylate component varies depending on the kind and concentration of liquid crystal ('497, column 4, lines 55-65). '497 gives the specific example of a mixture of an acrylate with an HLB value of 1.8 and an acrylate with an HLB of 6.0 in a ratio by weight of 1:1 ('497, column 6, lines 15-50) wherein the difference between the two HLB values is a relatively significant 4.2, because the difference in miscibility provides an advantage for the end-use of the final product. This advantage of using a mixture of two acrylates with a relatively significant difference in miscibility with the liquid crystal is recognized by JP '240 which teaches that the mixture allows for good control of the phase separation structure of the PDLC (JP '240, English translation, section [0013]).

The difference between JP '240 and '497 is that JP '240 uses liquid crystal which is poorly miscible with the alkoxylated phenolacrylate while '497 uses liquid crystal which can be

either poorly miscible or readily miscible with the alkoxyated phenolacrylate as long as the other acrylate has an HLB value that balances the average overall HLB value to within the range from 2.5 to 7.0 ('497, column 6, lines 25-60). '497 thus demonstrates that the liquid crystal can be readily miscible with the alkoxyated phenolacrylate as long as the other acrylate has an HLB value that balances the average overall HLB value to within the set range.

3. Applicant argues that it is well known in the art of colloidal chemistry that compounds having an HLB value between 1 and 10 are predominantly lipophilic whereas HLB values greater than 10 indicate a predominance of hydrophilicity, and that therefore monomers (5) and (6) of the '497 patent are both predominantly lipophilic and therefore could both be incompatible with a very polar liquid crystal material even though monomer (6) is less lipophilic than monomer (5).

Applicant is respectfully reminded that the primary reference JP '240 teaches that the mixture of compatible and incompatible acrylates allows for good control of the phase separation structure of the PDLC (JP '240, English translation, section [0013]), and that the secondary reference '497 demonstrates that the liquid crystal can be readily miscible with the alkoxyated phenolacrylate instead of being immiscible, as long as the other acrylate has the opposite miscibility characteristic and has an HLB value that balances the average overall HLB value to within the set range.

4. Applicant argues that the Office has failed to considered the fact that JP'240 fails to teach an ethoxyated alkyl-phenolacrylate that is readily miscible with a liquid crystal material.

Applicant is respectfully directed to the paragraph above.

5. Applicant argues that '497 clearly states that the formulas (7) and (8) are preferred when used in combination because they can be obtained with no difficulty and have low vapor pressure, not because of their miscibility.

Applicant is respectfully apprised that the fact that Applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

6. Applicant argues that '497 only teaches an alkyl-phenol acrylate that is part of a monofunctional component mixture which also includes a monomer of formula (7) and does not teach the use of an alkyl-phenol acrylate alone as a readily miscible component of a PDLC.

Applicant is respectfully reminded that the primary reference JP '240 teaches that the mixture of compatible and incompatible acrylates allows for good control of the phase separation structure of the PDLC (JP '240, English translation, section [0013]), and that the secondary reference '497 demonstrates that the liquid crystal can be miscible with the alkoxylated phenolacrylate instead of being immiscible as long as the other acrylate has the opposite miscibility characteristic and has an HLB value that balances the average overall HLB value to within the set range.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (571)272-1492. The examiner can normally be reached Monday to Friday from 9:00 AM to 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (571)272-1498. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1300.

SH
Sow-Fun Hon
01/14/04

Harold Pyon
HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772 1/14/04